

<p align="center">Medical Imaging Standard Operating Guidelines</p> <p align="center">UW Health</p>																	
<p align="center">Title: Guidelines for Breast Ultrasound</p>																	
<p>Original Author(s): Elezaby/Burnside/Propeck/Baus ("Diagnostic Ultrasound")</p> <p>Original Approval Date: April 11, 2012</p> <p>Revision Author(s): Wendy DeMartini, Katie Jungers, Mai Elezaby</p> <p>Revision Date: August 2016</p> <p>Revision Author: Roberta Strigel, MD</p> <p>Committee (if different than authors):</p>																	
<p>Approvals:</p> <table border="1"> <thead> <tr> <th>Discipline/Group</th> <th>Approval Date & Signature</th> <th>Implementation Date & Signature</th> </tr> </thead> <tbody> <tr> <td>Medical Imaging Director</td> <td></td> <td></td> </tr> <tr> <td>Breast Imaging UWHC (DeMartini/Jungers/Walker)</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table>			Discipline/Group	Approval Date & Signature	Implementation Date & Signature	Medical Imaging Director			Breast Imaging UWHC (DeMartini/Jungers/Walker)								
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<p>Goal: To outline the guidelines for indications, scheduling and performance of Diagnostic Breast Ultrasound and Screening Breast Ultrasound</p> <p>The Standard Operating Guidelines (SOGs) are meant as a framework for the best practices in the care of our patients to standardize and coordinate care across locations. They are guidelines and can be modified, if necessary, in individual situations based on the clinical judgment of the radiologist, if it is determined to be in the best interest of the patient.</p>																	

Indications and Scheduling:

Breast Ultrasound is indicated and may be scheduled for the following reasons:

Diagnostic Breast Ultrasound:

- Initial evaluation of a focal clinical sign/symptom (palpable mass, thickening, non-cyclic pain, nipple discharge) in a patient less than 30 years old.
 - A diagnostic mammogram may follow the ultrasound at the radiologist's discretion.
- Initial evaluation of a focal clinical sign/symptom (palpable mass, thickening, non-cyclic pain, nipple discharge) in a patient who is pregnant.
 - A diagnostic mammogram may follow the ultrasound at the radiologist's discretion.
- Additional evaluation after a diagnostic mammogram of a focal clinical sign/symptom (palpable mass, thickening, non-cyclic pain, nipple discharge) in a patient 30 years old or greater.
- Additional evaluation after a diagnostic mammogram of a potential or definite mammogram.*

* Ultrasound evaluation of a potential or definite mammogram finding seen only on a single view is not advised (exceptions include a finding not accessible on orthogonal views, such as in the axilla). All attempts should be made to localize the mammographic finding in 3-dimensional space. This can be accomplished with standard orthogonal views, step oblique views or digital breast tomosynthesis.

Screening Breast Ultrasound:

- Screening breast ultrasound is offered on a very limited basis, only for a particular subgroup of hereditary high risk patients meeting all of the following clinical and scheduling criteria*:
 - 1) Documented carriers of the following gene mutations: BRCA, ATM, CDH1, CHEK2, PALB2, PTEN, STK11, TP53.
 - 2) **Not able to undergo breast MRI due to absolute or relative contraindications.**
 - 3) Patients of UW Health Breast Center clinical providers.
 - 4) After UW Health Breast Center clinical provider to UW Health breast imaging faculty direct conversation and approval.
 - 5) Orders contain statement in notes section: "High risk screening. Approved by Dr. _____ (breast imaging faculty)".
 - 6) A subspecialty breast imaging focused faculty must be present, and initially the examinations will be performed by the subspecialty breast imaging focused faculty. Due to this requirement, initially (7/2016) this service is offered only at the CSC facility.

*Screening breast ultrasound is not offered in other scenarios, such as for average risk patients, or for elevated risk patients who are not gene mutation carriers and not able to undergo breast MRI. In particular screening breast ultrasound in average risk women is currently not recommended by UW Health. If supplemental screening is indicated or desired, consultation in the Prevention, Assessment, Tailored Health Screening (PATHS) Clinic (<http://www.onclive.com/publications/obtn/2011/may-2011/University-of-Wisconsin-Carbone-Cancer-Center-A-Tradition-of-Comprehensive-Multidisciplinary-Care>) is available to develop a personalized plan for each patient.

Breast Ultrasound Performance

Required Image Annotation:

All images: Laterality (L/R), o'clock position, orientation (TRV, Long preferred over AR/ Rad), and distance from the nipple.*

If a site of clinical concern (e.g. palpable mass, thickening, pain): Note on the image "clinical concern", if that image reflects the clinical site.

*Additional annotation using the breast pictogram/diagram should be avoided, as it is less accurate and precise, and more prone to the location being retained from a prior site.

Diagnostic Breast Ultrasound:

Scope: Site(s) of clinical or imaging finding(s).

Imaging documentation for each site and/or significant finding:

- No significant ultrasound finding: two images in orthogonal views with appropriate annotation.
- Significant ultrasound finding: at least 5 images, two images in each orthogonal plane, first image without calipers and second image (same as the first) with calipers, image with color flow, additional images or cine clips as needed to delineate the abnormality.

Screening Breast Ultrasound:

Scope: Imaging of each whole breast.

- Screening breast ultrasound imaging will be performed at the same appointment as screening mammogram (rather than alternating every 6-months as with MRI)
- Preferably Screening breast ultrasound and screening mammogram interpreted by the same radiologist making relevant correlations between the imaging studies.

Imaging documentation for each site and/or significant finding:

- Findings that are characteristically benign or otherwise not clinically significant (e.g. benign cysts, ducts, lymph nodes) are within the expected range of normal will not be recorded or reported (examination is assessed as BI-RADS 1).

- No significant ultrasound findings: record one image in one plane (ordinarily radial) for each quadrant, at the same distance from the nipple (4 cm for an average breast), one image of the retroareolar region just behind the nipple.
- Significant ultrasound finding: at least 5 images, two images in each orthogonal plane, first image without calipers and second image (same as the first) with calipers, image with color flow, additional images or cine clips as needed to delineate the abnormality.